Photographs Made at Green River of the Corona and Prominences

That part of the program of the Mount Wilson Solar Observatory at Green River, dealing with the direct photography of the corona, was carried out by the use of an eight-inch objective of thirty feet focus. Four exposures were made, of eight, one-half, sixty-five, and one-half seconds respectively. Clouds with rifts in them covered the Sun, and the three short exposures showed very uneven intensities around the Sun. The longer exposure, however, gave time for the entire corona to be exposed thru the rifts and a fairly satisfactory negative was secured, showing the main features of the corona quite well, as can be seen from the illustration. The prominences also are retained in this negative but do not show in the reproduction.

The prominence illustrated was the one at the west limb, and was taken one or two seconds after third contact. This prominence seems to have been a very active one, as the objective grating images show considerable distortion due to radial velocity.

Graflex plates were employed, and a soft working developer used in order to bring out the faint extensions of the corona and at the same time to hold the prominences.

Ferdinand Ellerman.

The Green Corona Line

The attempt on June 8th by the Mount Wilson expedition to find the absolute wave-length of the green corona line and the rotation of the corona was only partially successful, as owing to the clouds the spectrum of the corona was obtained only on the east edge of the Sun.

The instrument used was a prismatic spectrograph of 40 inches focus, giving a scale of 6 angstroms per mm. at $\lambda 5300$. The slit coincided with the Sun's equator on an image 2 cm. in diameter. Just before totality a comparison spectrum was obtained by exposure on an iron arc, a simple occulting arrangement cutting out the iron spectrum in the region $\lambda 5303$. The comparison spectrum has made it possible to get the absolute wave-length of the green line to a high degree of accuracy, aside from the influences of rotation and local movements. The spectrum of the line is very weak and gives the impression that it might appear less simple with a stronger exposure.

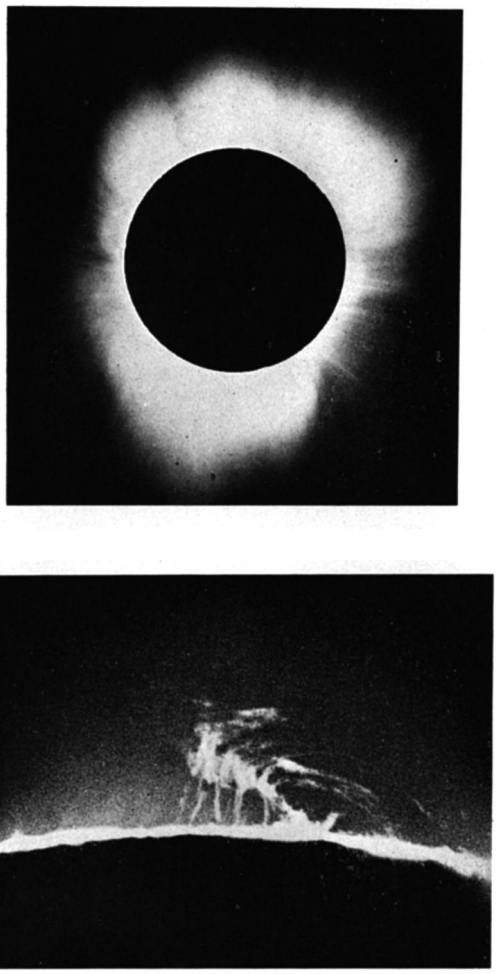

FIG. 8.
PHOTOGRAPHS OF THE CORONA AND PROMINENCES
Made at Green River